

	GOVERNMENT OF NEWFOUNDLAND AND LABRADOR Department of Transportation and Infrastructure	BRIDGE INSPECTION REPORT B11192021-2	
Date: 10/22/2021	Inspected By: Mike Button	Category: Office - Bridge Office	
BRIDGE INFORMATION			
Site:	1-028 - BRANCH CAUSEWAY BRDG, CAPE SHORE RD		
Route:	100	Overall Length:	47.7 m
Year Built:	1971	Est: No	Overall Width: 9.6 m
Year Last Rehab.:		Est: No	Roadway Width: 8 m
Region:	AVALON PENINSULA	Sidewalk Width:	0.8 m
Jurisdiction:	Provincial	Clearance to R.D. or N.W.L.:	3.1 m
Type of Structure:	01 - AASH to Girder	Max Depth of N.W.L.:	3.3 m
Purpose of Structure:	04 - Over Non-Navigable Waters	Spans:	
Type of Handrail:	02 - Concrete Rail	Span No.:	Length
Roadway Surface:	02 - Asphalt	Span No.:	Length
Alignment Vertical:	01 - Good	1	36.1
Alignment Horizontal:	01 - Good	2	0
Restrictions:	No	3	0
		4	0
		5	0
		6	0
BRIDGE PHOTOS			
			
SUBSTRUCTURE			
Condition:	P3 - Poor	Bearings:	U - Uninspectable
		Bearing Seat:	P3 - Poor
Comments:	- Severe map cracking with efflorescence on all wingwalls and abutment sides. - The west abutment has moderate spalling to reinforcement on both corners with light cracking throughout the face. Moderate concrete erosion throughout the tidal elevation zone across the face. Abutment back wall and bearing seat exterior has mild spalling to corner reinforcement. The southwest back wall has a very wide crack propagating from the expansion joint area to the bearing seat. - The east abutment has moderate spalling to reinforcement on both corners with light cracking throughout the face. Moderate concrete erosion throughout the tidal elevation zone across the face. Northeast exterior creep block has very extreme disintegration. Southeast creep block has moderate cracking with efflorescence. Substructure, P3.		
SUPERSTRUCTURE			
Condition:	P3 - Poor	Expansion Joints:	P3 - Poor
	- Both expansion joints leaking, P3. Girders have hairline to medium longitudinal cracks throughout all faces of		

Comments: the bottom flange and is leaching efflorescence in several locations. Exterior girder end blocks heavily cracked/disintegrated likely caused by expansion joint leakage. Transverse/hoop reinforcing bars visible on the bottom flange of all girders with moderate to severe corrosion within 2m of the bearing seats. Reinforcing bars visible in some girder webs, likely due to low cover. Superstructure P3.

DECK

Condition:	P1 - Poor	Curbs:	P1 - Poor
Hand Rail:	G - Good	Roadway Condition:	P3 - Poor
Approach Rail:	F2 - Fair		

Comments: - Asphalt has numerous potholes, ruts and cracks on the approaches and across the structure, P3. - Handrail in good condition, G. - Guiderail in fair condition, connected to new end blocks, complete with hazard markers and extra energy dampening posts prior to end blocks, F2. - Roadway curbs in fair condition and recently patched, F2. - Southwest curb over wingwall replaced, G. South exterior curb/fascia/soffit in poor condition with heavy cracking and is heavily leaching efflorescent materials forming stalactites across the structure. North fascia/soffit/exterior curb has moderate cracking with some efflorescence across the structure. The northeast fascia/soffit/exterior curb corner has advanced to extreme disintegration, exposing reinforcement. Likely caused by a leaking expansion joint/un-chaulked curb. Exterior curbs, P1. - Concrete deck has extreme leaching of efflorescent materials around most girders and from moderate to heavy cracks between girders, indicating multiple cracks through the deck permitting chloride penetration/migration, P1.

HYDROLOGY

Water Velocity:	Tidal m/s	Ice Problem:	N - No Problem
Water Depth:	Tidal m	Scour Problem:	P - Possible Problem
Waterway:	01 - Adequate	Debris Problem:	N - No Problem

Comments: - Tidal zone, suspect scour under both footings.

REPLACEMENT/REHABILITATION

Next Rehab. Date:		Replacement Year:	2026
Antic. Rehab. Cost:	\$REPLACE	Replacement Cost:	\$2,500,000
Recommendations:	- Replace the structure within 5 years.		

OBSERVATIONS

Overall Condition:	P3 - Poor	Requires Further Inspection:	No
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Additional Observations: - Waterline attached to the upstream (north side of structure). - Hazards, mild traffic and working around water. Bridge in overall poor condition and needs replacement.

LEGEND:

Condition Definitions:			Problem Definitions:	Category Definitions:
1 - *Good - [discontinued code].	F2 - Fair.	C - Unsafe (Closed to Public).	N - No Problem.	Maint. - Maintenance.
2 - *Fair - [discontinued code].	F1 - Fair.	U - Uninspectable.	P - Possible Problem.	Eng. - Engineering.
3 - *Poor - [discontinued code].	P3 - Poor.	I - Inapplicable.	K - Known Problem.	Office - Bridge Office.
4 - *Unsafe - [discontinued code].	P1 - Poor.		NA - Not Applicable.	
G - Good.	P - Poor.			

PHOTO GUIDELINES:
Inspection Photos:
 Please provide photos using guidelines below:
 • Any item which inspector feels should be documented by photograph
 • All items noted above as being P3, P1, P, or C
 • Any evidence of known ice, scour, debris, waterway problems

INSPECTION PHOTOS